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THESIS

LEARNING OBJECTIVES FOR ENTRY-LEVEL
DEPARTMENT OF THE NAVY ACCOUNTING
TECHNICIANS (GS-525 SERIES)

by

Caroline Margaret Hillen

December 1991

Thesis Advisor:

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REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.		
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION Naval Postgraduate School		6b. OFFICE SYMBOL (If applicable) 36		7a. NAME OF MONITORING ORGANIZATION Naval Postgraduate School	
6c. ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5000			7b. ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5000		
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER	
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
			Program Element No	Project No	Task No
					Work Unit Accession Number
11. TITLE (Include Security Classification) LEARNING OBJECTIVES FOR ENTRY-LEVEL DEPARTMENT OF THE NAVY ACCOUNTING TECHNICIANS (GS-525 SERIES) (UNCLASSIFIED)					
12. PERSONAL AUTHOR(S) Hillen, Caroline, M.					
13a. TYPE OF REPORT Master's Thesis		13b. TIME COVERED From To		14. DATE OF REPORT (year, month, day) December 1991	
				15. PAGE COUNT 99	
16. SUPPLEMENTARY NOTATION The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.					
17. COSATI CODES			18. SUBJECT TERMS (continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUBGROUP	Financial management; training; education; learning objectives; accounting technicians.		
19. ABSTRACT (continue on reverse if necessary and identify by block number) Defense Management Review Decision No. 985 cited the inadequacy of existing financial management education and training, and mandated the review of current education and training offerings to identify gaps and overlaps. As such, this thesis focuses on the education and training needs of one segment of the financial/resource management community: entry-level GS-525 series accounting technicians. The objective of the thesis is to identify commonalities among the tasks performed by entry-level GS-525 series accounting technicians, holding various jobs at different types of commands. Accordingly, it identifies current and future characteristics of the GS-525 series accounting technician work force, identifies current and proposed career development plans, current instructional offerings and future training needs, and proposes specific learning objectives for incorporation into a comprehensive and continuous training program.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input checked="" type="checkbox"/> SAME AS REPORT <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL Glenn D. Eberling			22b. TELEPHONE (Include Area code) (408) 646-2884		22c. OFFICE SYMBOL AS/Er

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Learning Objectives for Entry-level Department of the Navy
Accounting Technicians

by

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE DEGREE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1991

ABSTRACT

Defense Management Review Decision No. 985 cited the inadequacy of existing financial management education and training, and mandated the review of current education and training offerings to identify gaps and overlaps. As such, this thesis focuses on the education and training needs of one segment of the financial/ resource management community: entry-level GS-525 series accounting technicians.

The objective of the thesis is to identify commonalities among the tasks performed by entry-level GS-525 series accounting technicians, holding various jobs at different types of commands. Accordingly, it identifies current and future characteristics of the GS-525 series accounting technician work force, identifies current and proposed career development plans, current instructional offerings and future training needs, and proposes specific learning objectives for incorporation into a comprehensive and continuous training program.

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I. INTRODUCTION

A. Background.

As the Navy is required to cut its personnel force to accommodate steadily declining operating budgets, it will become increasingly important to make better use of existing personnel resources, specifically finance and accounting personnel. In an article published in the July 1991 issue of the Navy Comptroller, Mr. John E. Keller of the Defense Resources Management Education Center, said it clearly:

In this era of sharply declining budgets, every dollar spent inefficiently or ineffectively on support activities is not simply a management crime. It exacts a far more serious price; it denies that dollar to forces and equipment (Keller 1991, 16).

Since the financial/resource management community has the broadest charter among support activities, improving financial management systems and techniques "can play a role analogous to force multipliers in the world of weapons systems" (Keller 1991, 17). Accordingly, the importance of pertinent and effective training for financial/resource management personnel cannot be overstated.

The importance of training is further reflected in the Total Quality Management philosophy advocated by W. Edwards Deming and recently adopted by the Department of Defense. Implementation of Deming's management theory includes the

application of fourteen management points or principles, including the need for (1) constant and continuous improvement of production and service, and (2) institution of a vigorous program of education and self-improvement (Deming, 1986).

Recognizing the importance of the education and training issue, the Department of Defense published Defense Management Review Decision (DMRD) No. 985. DMRD No. 985 cited the inadequacy of existing financial management education and training, and mandated the preparation of a Management Plan to address the deficiencies. This Management Plan determined the need to identify gaps and overlaps in financial management education and training, so as to "round out a balanced and comprehensive, competency-based, career-need driven program of education and training offerings" (Executive Summary 1991, 6).

In support of the Management Plan's recommendation, this thesis identified one segment of the financial/resource management community for evaluation: entry-level GS-525 series accounting technicians. The thesis set out to recommend common learning objectives required for entry-level competency of personnel in the target community. Furthermore, in support of Total Quality Management and its recognition of the fact that those doing the job know it best, involvement was sought by those actually performing the jobs in question.

B. Objectives.

The purpose of this thesis is to determine common-base learning objectives for the training of entry-level civilian government-employee accounting technicians (GS-525 series). Such learning objectives may be used in support of the Management Plan's objective of identifying education and training gaps and overlaps, by using them to analyze existing programs. This, in turn, will allow the Department of the Navy to establish relevant and effective training programs for GS-525 series accounting technicians, that meet the real-world requirements of the Navy and its changing operating environment.

C. The Research Question.

This thesis will attempt to answer the following research question: What learning objectives do Department of the Navy accounting technicians (GS-525 series) require knowledge of to perform their jobs effectively? To this end, some secondary questions must be answered: (1) What are the education and experience levels of newly hired accounting technicians? (2) What training (in-house and other) is made available to entry-level accounting technicians? (3) What will be the work force environment of the future? (4) Which job skills are common to all entry-level accounting technicians?

D. Scope and Limitations.

1. Scope.

The main focus of this thesis study is to determine the skills required of entry-level new-to-the-system Navy accounting technicians (GS-525 series), and to translate these into specific learning objectives. The study is intended to determine generic job skills, and not any that are specific to any one particular type of Command. The specific learning objectives, once determined, should aid in developing constructive and relevant training programs for entry-level accounting technicians. However, the implementation of these learning objectives into actual training programs is beyond the scope of this thesis.

2. Limitations.

Since this thesis research effort relies heavily on information provided by survey questionnaires, the data obtained is subject to the normal limitations inherent to this type of data collection. Considerable effort was made, through the use of extensive research, to avoid common survey questionnaire pitfalls; however, the following limitations should be recognized.

As expected, not all addressees returned the questionnaires sent them. Despite providing pre-addressed, stamped return envelopes, only 52% of the surveys were returned. Typically, response rates vary depending on the

respondents degree of interest in the survey topic; therefore those commands with a greater interest in the topic are more likely to respond. Consequently, although care was taken to send the survey questionnaires to commands from various Navy communities, a skewed response distribution may have resulted.

Also as expected, not all respondents interpreted the questions as they were intended to be. This problem was exacerbated by the varied experiences and expectations of the respondents.

Additional limitations of this study include the lack of standardization presently existing in Navy finance and accounting application systems and the turbulent environment accompanying attempts at standardization.

E. Literature Review and Methodology.

1. Literature Review.

Several sources provide the backbone for this thesis research. These included the various working papers from the working groups established in connection with the Symposium on Financial Management Education and Training, the Defense Management Report Decision (No. 985) of 5 December 1990, the 8 May 1991 Memorandum from the DoD Comptroller, Mr Keller's July 1991 Navy Comptroller article "Training Initiatives Seen as Key to Work Force of Tomorrow", and Dean Kiyohara's thesis research "Financial Management Training For Navy Ashore Commands". Each of these sources underscored the need for

improving current financial management education and training, and most identified training deficiencies and provided recommendations for improvement.

Mr. Kiyohara's thesis study more specifically addressed education and training for Navy accounting technicians. His recommendations for this group included the need for further study to identify training requirements. Accordingly, this thesis attempts to follow up on Mr. Kiyohara's recommendation by collecting data directly from finance and accounting personnel via interviews and survey questionnaires.

2. Interviews.

Personal interviews (Appendix B) were conducted at local area bases as a pre-survey for determining the parameters of the survey questionnaire. Questions focused on identifying generic job requirements specific to the entry-level accounting technician, necessary skills for the job, and the availability of skills training. In addition, phone interviews (Appendix B) were conducted with key Office of Civilian Personnel Management personnel to (1) obtain information regarding the distribution and location of GS-525 series accounting technicians, and (2) obtain listings of learning objectives incorporated in existing training courses for accounting technicians.

Interviews were chosen as the preferred medium for information gathering in this case because they allow greater latitude in steering the scope of data collection, and because they provide greater assurance that the information providers understand exactly what they are being asked. Specifically in the case of the pre-survey, the interviews helped identify specific questions to include in the survey, and helped avoid poorly formulated questions that might be confusing, ambiguous or simply irrelevant.

3. Survey Questionnaires.

The survey questionnaires were distributed to a representative sampling of Navy commands employing entry-level GS-525 series accounting technicians. Command were requested to distribute the enclosed questionnaires to junior GS-525 series accounting technicians, their supervisors, and either the Accounting Officer or the Comptroller.

The survey questionnaire was chosen as the most appropriate method for data collection given the desire for reaching the maximum number of potential respondents. It focused on identifying generic job skill requirements and prioritizing the importance of specific skill areas.

F. Thesis Organization.

A brief description of the contents of the remaining thesis chapters follows.

1. Background Issues.

This chapter analyzes the environment of tomorrow's work force and identifies the need for providing the training crucial for a competent work force. The chapter identifies available training programs, the learning objectives they address, and their ability to meet the needs of today's work force and the Navy. Furthermore, it examines the role of the GS-525 accounting technician in the Navy's Resource Management System. Questions answered include what types of jobs the GS-525 series accounting technician holds, what responsibilities accompany these jobs, and how many accounting technicians are in the system and where.

2. Survey Methodology Data Tabulation.

This chapter includes a detailed presentation of the methodology applied to collecting the survey data. Additionally, it presents a summary of the raw data collected.

3. Conclusions and Recommendations.

Thesis conclusions are presented, including specific learning objectives recommended for entry-level GS-525 series accounting technicians, based on survey questionnaire results. Specific recommendations are made for incorporating the identified learning objectives into GS-525 series accounting technician education and training. These learning objectives are non-job specific, and apply regardless of the accounting technicians specific job or particular Command.

4. Appendix A (Survey Questionnaire).

Appendix A includes a copy of the survey questionnaire, and accompanying cover letter, distributed to Department of the Navy ashore commands.

5. Appendix B (Interviews).

Appendix B includes a reference list of interviews conducted in support of this thesis.

II. BACKGROUND ISSUES

A. Introduction.

Today's financial/resource management working environment is dynamic and complex. Diminishing Defense resources are encouraging new ways of doing business, including reimbursable accounting by way of the Defense Business Operating Fund (DBOF), and standardization of finance and accounting systems across service and agency lines by way of the Defense Finance and Accounting System (DFAS). Whereas only recently each service and Defense agency functioned completely independently of one another, today the newly established Defense Finance and Accounting System oversees finance and accounting functions, policies, standards and systems for the military departments and other DoD organizations. Its mission is to "simplify, standardize and improve the various department's diverse financial and accounting policies, procedures and supporting automated information systems" (Career Structures Work Group 1991, 91).

DFAS currently employs 9500 civilian and 500 military employees previously employed with the independent finance and accounting activities of the services and agencies (Career Structures Work Group 1991, 91). As DoD moves towards more centralized and standardized finance and accounting systems,

the necessity for training and retraining will be even greater than it is today. Any attempt to establish training objectives and guidelines for GS-525 series accounting technicians necessitates a thorough understanding of the community and the future requirements of the work force. This chapter, therefore, presents background information regarding the career structure and demographics of the GS-525 series accounting technician community, evaluates existing training sources as they pertain to GS-525 series personnel, provides insight into the future work force environment, and summarizes the status of the DoD Financial Management Education and Training Initiative.

B. Career Structure and Demographics.

To properly understand the training needs of the GS-525 series accounting technician, an understanding of the accounting technician career structure and its relation to the rest of the financial/resource management community is vital. This section also describes the knowledge requirements typical of GS-525 series accounting technician positions, as well as the community's demographic profile.

1. Career Structure.

DoD financial/resource management employs a total of 120,823 military and civilian personnel. Of these, the primary component consists of civilian personnel in the GS-500 series of financial/resource management specialties; the

single largest career grouping within the 500 series is that of GS-525 series accounting technicians. GS-525 series accounting technician positions are among the 31,869 DoD civilian personnel positions classified as technical/clerical. (Career Structures Work Group 1991, 11)

The basic entry-level GS-525 series accounting technician position is at the GS-4 grade. Personnel in this series at the GS-1 to GS-3 grades include those working their way up from the clerical ranks, students and summer aides, and others hired on a case-by-case exception basis. Although the Department of the Navy additionally hires about 70 new employees every year through the Department of the Navy Financial Management trainee program, this program is not an option for the GS-525 accounting technician series (Career Structures Work Group 1991, 85). The GS-525 series accounting technician may fill a wide variety of financial management type positions, involved primarily with the day-to-day maintenance of records (Independent Study Working Group 1991, 18). The organizational climate for these technicians is often "plagued with heavy workloads, labor intensive, high turnover rates, inadequate staffing, and frequent legislative changes" (Independent Study Working Group 1991, 18).

2. Knowledge Requirements.

The U.S. Office of Personnel Management (OPM) provides two typical position descriptions, known as benchmarks (BMK),

for the 525-series accounting technicians. BMK# 1 involves travel and transportation, and BMK# 2 involves expenditure and collection vouchers and associated documents. The knowledge requirements listed for GS-4 entry-level positions for the benchmarks described above follow:

BMK# 1

- Knowledge of bookkeeping and accounting methods and techniques for verifying, obligating, and reconciling a variety of transactions in the travel accounts of a general ledger.
- Knowledge of various accounting transactions, codes and terminology.
- Knowledge of types of appropriations and allotments for individual and group travel and bulk movement of household goods and equipment.
- Knowledge of the agency travel accounting structure and automated system of ledgers and reports.

BMK# 2

- Knowledge of bookkeeping and accounting methods, forms, and techniques sufficient to classify and maintain a variety of expenditure and collection accounts in subsidiary ledgers and registers.
- A knowledge and understanding of accounting terminology, the chart of accounts, and the account code structure.
- A knowledge of the characteristics and use of source documents and associated accounting data, and their relationship to specific accounts in order to research and correct rejected information.
- A knowledge of contract terminology relating to financial transactions. (Office of Standards Development 1977, 31-35)

3. Demographics.

DoD-wide, full-time GS-525 series accounting technician positions total 13,440. The breakdown by service/agency is as follows: Navy--4,717, Army--4,405, Air

Force--2,693, Defense Logistics Agency--147, other DoD agencies--1,478. (Defense Manpower Data Center 1991)

a. Paygrade.

GS-525 Navy accounting technicians are employed at a wide variety of Navy and DoD commands, and occupy paygrades from GS-1 to GS-12. The majority of these accounting technicians (93%), are employed at the GS-7 or below pay grade. Even of the supervisors, 58% serve at the GS-7 or below level, 80% at the GS-8 or below level. The information regarding distribution of Navy GS-525 series accounting technicians, provided in the table below, originates from two separate sources: the grade distribution of the total GS-525 series population from a Defense Manpower Data Center generated summary report dated June 1991, and the supervisor grade distribution from Navy Military Personnel Command (Code 1666) Occupation Inventory Report 1, dated 8 April 1991.

<u>Paygrade</u>	<u>Total number</u>	<u>Supervisors</u>
GS-1	0	0
GS-2	10	0
GS-3	36	0
GS-4	424	0
GS-5	1,536	20
GS-6	1,571	97
GS-7	800	188
GS-8	196	116
GS-9	119	92
GS-10	7	3
GS-11	16	9
GS-12	2	2
	<hr/> 4,717	<hr/> 527

b. Gender and Minority.

The GS-525 accounting technician population is predominantly female. Whereas the women's share of the total U.S. work force is around 45% (Banks 1990, 31), women make up 83% of this career group in the Navy (84% in DoD) (Defense Manpower Data Center 1991).

Forty-one percent of the navy accounting technician population is minority. Broken down by sex, 8.4% of the entire GS-525 series population is minority male and 32.7% is minority female (Defense Manpower Data Center 1991). The minority portion of this navy career group far exceeds the 21% (Banks 90, 31) minority make-up for the U.S. work force as a whole. Furthermore, if minorities continue to find the DoD civilian accounting technician career path an attractive employment option, then the expected increase in the minority portion of the U.S. work force, from 21-26% between 1988 and the year 2000 (Banks 1990, 31), is likely to be accompanied by a corresponding increase in the minority make-up of the Navy/DoD accounting technician community.

c. Age.

The average age of navy accounting technicians personnel is 42.3 years. Only 25.2% of the population is over 51 years old, and 13.5% is under 30. The bulk of the population, 61.2%, is between the ages of 31 and 50 (Defense Manpower Data Center 1991) and constitutes the baby-boomer

generations. As these baby-boomers mature and as the numbers of young people entering the work force decrease, the Navy's accounting technician population is bound to see a commensurate increase in the average age of its personnel.

d. Education.

The average education level of navy accounting technicians is comparable with the overall average level for all services. The bulk of these personnel have received formal education at a level somewhere between a high school diploma (88.6%) and a bachelor's degree (9.5%). Only 1.6% have no high school diploma, and only 0.4% have a master's degree or higher (Defense Manpower Data Center 1991).

e. Length of Service.

The average length of service for personnel currently employed by the navy as accounting technicians is around 11.3 years. Although 66.6% of these accounting technicians have served between five and 20 years (33% between five and ten years, and 33.6% between 11 and 20 years), 18.9% have a length of service of four years or less. Only 14.6% have served over 21 years (Defense Manpower Data Center 1991). These statistics suggest that, at any given point in time, a significant portion of the population is relatively new to the job (i.e. has been on the job for less than four years), and underscore the importance of entry-level training.

C. Evaluation of Training Sources.

This section presents information regarding existing training sources as they pertain specifically to the career management of GS-525 series accounting technicians, as well as to the Financial/Resource Management community in general. As such, it looks at the existence (or non-existence) of career program management, the availability of training, and its ability to meet the needs of the community.

1. Career Program Management

Presently each military department or agency establishes its own policies and standards on training and education. In the area of financial/resource management, the DoD and each of the services and agencies provide their own separate career programs. Despite the varied scope of these existing financial/resource management career programs, currently none specifically cover technicians/para professionals (Career Structures Work Group 1991, 201).

The DoD program's purpose is to "promote productivity by providing education, training, and career development opportunities for DoD employees in Financial/Resource Management" (Career Structures Work Group 1991, 201). Its goals include raising the level of professionalism in the community, as well as the level of individual and corporate effectiveness (Career Structures Work Group 1991, 199). It does not, however, cover accounting technicians.

The Department of the Navy's Civilian Financial Management Career Program aims to provide a decentralized career management framework for employees in financial/resource management. Career counselling is provided by the Navy Comptroller Program Management Office and by command and activity comptroller staffs (Career Structures Work Group 1991, 85). The program assigns responsibility for career development and meeting job requirements to both individuals and the organization. Once again, although GS-525 series accounting technicians represent the largest single career group within the GS-500 series of financial/resource management specialties, they are not covered under this program.

2. Available.

Courses available in the field of financial/resource management are offered by the individual services and by OPM, and are published in the DoD Financial Management Training and Education Catalog, and the OPM Annual Catalog of Training Courses. Some of these courses are offered in a classroom training setting, others only as correspondence courses. The OPM courses are only available at west coast locations, largely Seattle, Washington and San Francisco, California. The service-offered courses are held at various locations within the U.S., or are offered as correspondence courses. In addition to financial/resource management courses, there are

several resident-type courses available in related areas, such as federal budgeting, computer skills and office productivity, which might be used to enhance the effectiveness of training.

Many DoD and service courses offered in applicable subject areas seem to be unavailable to GS-525 series accounting technicians although they are available to other GS-500 series technicians. In a tabulation of existing course offerings compiled by the Career Structures Working Group, for example, GS-525 series accounting technicians were not considered part of the primary or ancillary user population of either the Navy's Principles of Navy Budgeting, Introduction to Navy Industrial Fund, or Introduction to Navy Financial Management and Accounting courses.

With respect to service-offered courses, although largely available to civilian government personnel they are often more closely tailored to the career needs of active duty personnel than to those of civilian service employees (Independent Study Working Group 1991, 23). Additionally, most accounting technicians are not afforded the benefit of attending resident-type training (training requiring travel and per diem) for acquiring their skills. "Attending lengthy resident training courses can cause hardship for the technical work force" (Independent Study Working Group 1991, 18). This practice persists, despite the expected continued need for accounting technician work as a necessary complement to many or most professional accounting positions (Independent Study

Working Group 1991, 18). The course offerings for GS-525 series accounting technicians, therefore, appear to be very limited.

3. Ability of Meet Needs.

As the 21st Century approaches, the changing work force coupled with a decreasing DoD budget will force the DoD and the Navy to make more efficient use of both its financial and human resources (Technology Working Group 1991, 1). The Financial Management Education and Training Initiative is part of a Defense Management Review Process aimed at furthering this efficiency. As such, its charter is to examine and evaluate existing financial/resource management education and training in an effort to make it more responsive to the needs of the community.

Conclusions reached by the Career Structures Working Group for the Financial Management Education and Training Initiatives Symposium in Monterey, California from 15-18 September 1991, concluded that the "status quo for education and training of Financial/Resource Management personnel in DoD is unsatisfactory" (Career Structures Work Group 1991, i). Current finance and accounting courses are highly service specific and limited in their effectiveness and efficiency by duplication. And while some courses include core principles and concepts, these represent only a small part of the overall curriculum and are inextricably mixed with service/systems-

unique aspects of the training. (Curriculum Configuration Control and QA Working Group 1991, 9) Attending lengthy resident training courses can cause hardship for the technical work force, but as the work force declines and as technology increases, the depth of knowledge required by each accounting technician will increase, as will the need for cross-training in other specialties (Independent Study Working Group 1991, 18).

As concluded by the Career Structures Working Group, effective improvements of DoD Financial/Resource Management career program management will become increasingly important as defense budgets are cut and decreased training budgets follow. Although no training structure entity currently exists to direct, develop and oversee the implementation of training and education policies of DoD Financial/Resource Management programs, it should. While "all services/components share the goal of having a well-trained, highly productive Financial/Resource Management work force, the multiple, unique Financial/Resource Management career management programs existing are unsatisfactory to the job. (Career Structures Work Group 1991, 185)

Presently, training requirements differ between services/components. "Accounting, disbursing, payroll and travel all have common elements, but are currently operated using separate systems and application procedures" (Career Structures Work Group 1991, 124). With the increased

consolidation of finance and accounting functions under the Defense Finance and Accounting System (DFAS), consolidation of financial/resource management education, training, and career management programs will become more feasible.

D. Work Force 2000 Environment.

To properly assess the training needs of the future, it is necessary to have an idea of what that future will look like. This section presents economic and social projections for the future work environment. Furthermore, it provides an assessment of how these projections are likely to affect the quality and size of the future labor force, and of future training requirements.

1. Introduction.

As the decade of the 1990s unfolds, employer-provided training will assume increasing importance for a number of reasons. Among the foremost of these are (1) the significant decline in the quality of U.S. education (Szabo 1991, 19), (2) a shortage of entry-level workers (Kutscher 1989, 39), and (3) the increasing mismatch between the supply of skills offered by workers and the demand for skills required by the workplace. (Szabo 1991, 19)

2. Education.

"Education -- and specific vocational training by companies -- looms as a major cost increase ahead in the 1990s" (Banks 1990, 31). Currently, industry spends

approximately \$200 billion per year on training, \$30 billion of which are spent for basic reading, writing and math skills. DoD, in contrast, spends approximately \$20 billion a year on training. (Technology Working Group 1991, 3)

According to Occupational Outlook Quarterly/Fall 1989, technical occupations, such as accounting technicians, are among those occupations which are expected to show faster rates of growth than occupations requiring less education. However, there is growing concern among employers that many who will enter the labor force will not meet job requirements with regard to educational preparation (Kutscher 1990, 40).

Today, a "substantial number of young people do not complete high school" (Kutscher 1989, 39). Among those who do, some may not qualify for post-secondary training. In a comparison of math, language and science proficiencies among 13-year-olds of several countries, the United States ranked in the lowest grouping. Even among adults, many are "unable to perform at a level very much above the lowest level of proficiency" (Kutscher 1989, 39). "One of every five employees on the job now cannot even read at an eighth-grade level" (Fewer Hands at Work 1991, 54). These findings were found true for all demographic groups, but were more pronounced among blacks and hispanics, who are projected to increase their share of the U.S. labor force over the 1988-2000 period (Kutscher 1989, 40).

The largest education and training problem is faced by the service sector. While the manufacturing and production industry is only expected to experience a 2% increase between 1988 and 2000, the service sector is expected to grow by 35% (Banks 1990, 31). Workers in the declining business sectors will have to be retrained to give them the necessary skills for the jobs opening up (Kutscher 1989, 40). "The American Society for Training and Development predicts that by the year 2000, seventy-five percent of all workers currently employed will need retraining" (Independent Study Working Group 1991, 16).

3. Labor Shortage.

The shortage of entry-level workers results primarily from a very sharp drop in the number of workers between the ages of 16 and 24 entering the labor force -- a trend expected to continue at least until the mid-1990s (Kutscher 1990, 7). Projections for the next decade include a growth for new entrants to the labor force of only 1.2% per year, as compared to 2% in the 12 years from 1976 to 1988 (Banks 1990, 31). A major contributor to this slowdown is that the "baby-bust" generation now entering the work force is considerably smaller than its parent generation which entered the labor force in the 1960s and 70s (Kutscher 1990, 4). The work force between 24 and 34 years of age grew at a cumulative rate of 64% from 1976-1988, peaked in 1990, and is expected to decline

(cummulatively) 12% by the year 2000. The only growth in the share of the labor force is expected in the 25-54 year-old group, which constitutes the maturing baby-boomer work force (Kutscher 1990, 5).

The service industries are expected to suffer most from this shortage of entry-level workers.

...all respondents (to a Nation's Business survey of employers) reported some current difficulties recruiting in every employee category, which includes secretarial, skilled-crafts, technical, and professional workers. (Szabo 1991, 17).

Of these, technical and professional scored the highest percentage job categories experiencing labor shortages both today and expected in five years. Thirteen percent of employers surveyed experienced "great difficulty" and 51% "some difficulty" in recruiting technical personnel today; 27% expected to experience "great difficulty" and 36% "some difficulty" in five years (Szabo 1991, 20).

Overall forecasts for the foreseeable future indicate that employers will face increased competition for a declining number of young people. "This is expected to have an impact on colleges and universities, the military, and industries that recruit young entry level workers" (Kutscher 1989, 39).

4. Training Needs Assessment.

Although there are those who argue that "any slowdown in the labor supply will be more than compensated for by

increased use of machinery and computers, and by people working better and smarter" (Banks 1990, 31), the reality of an under-educated future work force paints a less optimistic picture. "Many of today's young, entry-level workers are not prepared for the workplace" (Szabo 1991, 19). Besides lacking technical skills, workers lack basic verbal and simple work-habit skills. It is estimated that "three-fourths of new work-force entrants will be qualified for only 40% of the new jobs created between 1985 and 2000" (Szabo 1991, 19).

In order to meet the challenges of recruiting from a smaller and less qualified work force, employers will need to invest extensively in training and retraining.

An analysis of the changing occupational structure of employment leads to the inevitable conclusion that the combination of industry employment trends, technological change, and other factors will increase our need to enlarge our understanding of occupations, including their skill requirements and demographic profiles. (Interstate Conference of Employment Security Agencies 1990)

Training will need to focus not only on basic skills requirements, but also on preparing employees for change and instilling in them the ability to learn new things (Technology Working Group 1991, 4). Training will also need to focus on a learning environment that encourages interaction with the environment, presents learning material in meaningful contexts, considers the learner's individual characteristics and prior knowledge, and focuses on performance outcomes (Technology Working Group 1991, 4). A business's very

survival will depend on how well it handles these challenges (Szabo 1991, 20).

E. DoD Financial Management Education and Training Initiative.

The Department of Defense has acknowledged that existing financial/resource management training is unsatisfactory and recognizes the need to stress continuing and relevant professional training for all financial/resource management personnel. As such, the Department of Defense adopted the Financial Management Education and Training Initiative to facilitate improvement. This section provides a short budgetary back-drop that emphasizes the urgency for reform, and outlines the structure recently put in place to facilitate the financial/resource management education and training reform process.

1. The Budgetary Reality.

The Defense budget is projected to decrease by 26% in real terms from 1990 to 1996 (Congressional Budget Office 1991, 68). This decreased funding will be accompanied by manpower reductions of 20% for military and 12% for civilians over the same time period (Congressional Budget Office 1991, 69). The decreased defense budget will affect all appropriation accounts, including Operations and Maintenance, which provides funding for training and education. Despite a shrinking federal work force, the competition between the

public and private sector for qualified employees will intensify as the labor market shrinks. As it stands now, "entry requirements for accountants have (already) been liberalized to increase the number of candidates qualifying for entry into the career field" (Bowles 1991, 51).

Private business will offer more lucrative, innovative employment packages to attract the best of the new employees...To remain competitive for talent, the federal sector must remember that continuing education has become a major employment benefit. (Bowles 1991, 52-53)

Lower recruiting standards combined with a smaller federal work force and a growing work load, will necessitate working smarter and channelling greater effort into training and education. (Bowles 1991, 52)

2. Defense Management Report Decision No 985.

Defense Management Report Decision No 985 (DMRD No 985) of 5 December 1990, suggests that the Department of Defense is presently ill-equipped to deal with the challenges identified. Preliminary findings resulting from the evaluation of existing financial management education and training, show a proliferation of duplicated course content and a lack of standardization. DMRD No 985 gave the Financial Management Education and Training Working Group 45 days to come up with a management plan for improvement.

3. Management Plan.

The official Management Plan for the Review of Financial Management Education and Training, approved by the

DoD Comptroller, established a series of "task-oriented, formally chartered working groups" largely composed of functional experts from the military departments and Defense agencies. (Keller 1991, 18)

The plan provides a guide to implement a management initiative that relies on analytic work done in concert by members of the DoD Comptroller's staff, the Defense Resources Management Education Center (DRMEC), the Military Services, and the Defense Agencies working toward a common end. (Career Structures Working Group 1991, B-2)

The analytic work of the working groups focuses on the following topics:

- Current and future characteristics of the financial management community.
- Career fields and development.
- Current education and training offerings.
- Requirements for new and revised offerings.
- Curricula configuration control and quality assurance.
- Independent study opportunities.
- Instructional technologies.
- Conceptual and procedural issues related to reimbursability.
- Methods of and products for dissemination. (Keller 1991, 18)

Summary findings from these working groups were an integral part of the Financial Management Education and Training Initiatives Symposium held in Monterey, California from 15-18 September, 1991. As such, appropriate recommendations (taken from the Career Structures Work Group Report of August 1991) are provided below.

- That a gradual move toward a single DoD-wide civilian career management program take place for Financial/Resource Management personnel, as uniformity occurs in functional systems, applicable software, and personnel management information systems (ii). (Such uniformity is more likely now with the establishment of the Defense Finance and Accounting System (DFAS).)

- That the single DoD-wide civilian Financial/Resource Management career management program proposed be based on core programs that cut across service/agency lines, but have service/agency unique features (ii).
- That lead agencies and departments, in developing standardized systems for DoD, ensure that training subject matter is applicable to the DoD users, and that it is taught well and covered at the appropriate level of comprehension and sophistication (B-11).
- That a task analysis of the Financial/Resource Management work force be undertaken to ensure that the training is not redundant, but is addressing the gap in knowledge of the worker (124).
- That training attendance opportunities for the work force be expanded (4), and that the issue of mandatory training be referred to the standing committee for recommendation (207).
- That ways of increasing the numbers of women and minorities in upper grade levels be explored (195).

4. Standing Committees.

In May 1991, to provide a means for continuous review of financial education and training, the DoD Comptroller further mandated that four Standing Committees be formed, one each in the area of (1) Comptrollership, (2) Budget, (3) Finance and Accounting, and (4) Analysis. The Standing Committee's review functions include, among others, maintaining control and quality assurance over curriculum content, and "guiding the development of new or updated instructional materials to address currently identified gaps." (O'Keefe 1991) The membership of these standing committees is composed of experts and academics from the relevant functional fields, representative consumers of the education and training

provided, representatives from the Services, Defense Agencies, and the Office of the Secretary of Defense (OSD), and ad hoc members as necessary. (O'Keefe 1991)

III. SURVEY METHODOLOGY AND DATA TABULATION

A. Survey Questionnaire Methodology.

In an effort to enhance the validity of the survey results, numerous survey technique references were consulted prior to compiling the survey for this thesis. The references consulted provided information on the suitability of the questionnaire format, population sampling, how to conduct a questionnaire survey, how to format a questionnaire, how to word questions and in what order, and pitfalls to avoid. They stressed the importance of consulting with professional experts and cultural insiders, as well as the need for pretesting the survey (Converse and Presser 1986, 48-51).

Accordingly, before putting together the questionnaire, interviews were conducted with Naval Postgraduate School Comptroller Department personnel, including the Comptroller, the Accounting Officer, Accounting Technician Supervisor and two junior accounting technicians (Appendix B). These interviews lead to the decision that in determining entry-level learning objectives, the focus should be on the GS-4/5/6 grade position and be mainly concerned with learning objectives required of the new accounting technician in their first year on the job. Additionally, accounting technicians and their supervisors were interviewed at San Francisco Bay

Area commands, including NAS Alameda, NAS Moffett, FIPC Naval Supply Center Oakland, and Mare Island Naval Shipyard (Appendix B). Information obtained from these interviews was combined with information from Critical Elements and Standards in GS-4/5/6 525-series Personnel Appraisal Forms, and U.S. Office of Personnel Management Position Classification Standards to better understand the scope of duties performed by the target population. This information was also used to put together a relevant list of learning objectives for evaluation in the questionnaire. The course objectives for the Introduction to Navy Financial Management and Accounting Course and the Navy Practical Comptrollership Course (PCC), along with interviews with the Navy Practical Comptrollership Course instructor, CDR Glenn Eberling (Appendix B), provided further guidance and insight into selecting the appropriate learning objectives.

As suggested by Converse and Presser, a draft of the proposed survey questionnaire was provided to Naval Postgraduate School Comptroller Department personnel as a pre-test. Minor changes were made, based on the response to this pre-test, to enhance the clarity of the questionnaire. (A sample survey questionnaire is enclosed at Appendix A.)

To decide which Navy commands would be sent the survey questionnaire, it was necessary to determine where Navy GS-525 series accounting technicians worked and in what numbers. A Department of the Navy Office of Civilian Personnel Management

Occupation Inventory Report, dated 31 March 1991, provided a detailed breakdown of GS/GM-525 series accounting technicians by activity and grade. Since the aim of the survey was to determine common learning objectives for entry-level accounting technicians, assuring a good cross-section of the 525-series accounting technician population for survey participation was desirable. Accordingly, various types of activities were selected; within each type of activity, commands were selected that employed the largest numbers of GS-525 series accounting technicians. The commands selected to receive the survey questionnaire are listed below.

Major Claimants

1. CINC US Pacific Fleet
2. CINC US Atlantic Fleet
3. Commander Naval Reserve Force
4. HQ US Marine Corps
5. Naval Military Personnel Command
6. Naval Air Systems Command
7. Naval Sea Systems Command

Sub Claimants/Type Commanders

1. Commander Naval Air Force Atlantic
2. Commander Naval Air Force Pacific
3. Commander Naval Surface Force Atlantic Fleet
4. Commander Naval Surface Force Pacific Fleet
5. Commander Submarine Force US Atlantic Fleet

Naval Air Stations

- | | |
|---------------------------|------------------------|
| 1. NAS Pensacola, FL | 10. NAS Oceans, VA |
| 2. NAS New Orleans, LA | 11. NAS Kingsville, TX |
| 3. NAS Jacksonville, FL | 12. NAS Miramar, CA |
| 4. NAS Corpus Christi, TX | 13. NAS Beeville, TX |
| 5. NAS Alameda, CA | 14. NAS Fallon, NV |
| 6. NAS North Island, CA | 15. NAS Bermuda, BD |
| 7. NAS Glenview, IL | 16. NAS Sigonella, IT |
| 8. NAS Oak Harbor, WA | 17. NAS Lemoore, CA |
| 9. NAS Millington, TN | |

Major Naval Stations

1. Naval Station San Diego, CA
2. Naval Station Seattle, WA
3. Naval Station Philadelphia, PA
4. Naval Station Pearl Harbor, HI
5. US Naval Station Roosevelt Roads, PR
6. US Naval Station Guantanamo, CU

Submarine Bases

1. Naval Submarine Base New London, CT
2. Naval Submarine Base Pearl Harbor, HI
3. Naval Submarine Base Kings Bay, GA
4. Naval Submarine Base San Diego, CA
5. Naval Submarine Base Bremerton, WA

Shipyards

1. Philadelphia Naval Shipyard, PA
2. Norfolk Naval Shipyard, VA
3. Mare Island Naval Shipyard, CA
4. Puget Sound Naval Shipyard, WA

Supply Centers

1. Naval Supply Center Oakland, CA
2. Naval Supply Center San Diego, CA
3. Naval Supply Center Charleston, SC
4. Naval Supply Center Norfolk, VA

Schools

1. US Naval Academy, MD
2. Naval Training Systems Center, FL
3. Naval Postgraduate School, FL
4. Pacific Missile Test Center Point Mugu, CA
5. Naval Education and Training Program Development Center, FL
6. Marine Corps Development and Education Command, VA

Other

1. Navy Ships Parts Control Center, PA
2. Naval Mine Warfare Engineering Activity, VA
3. Navy Aviation Supply Office, PA
4. Naval Air Test Center, MD
5. Public Works Center Norfolk, VA
6. Public Works Center Oakland, CA
7. Public Works Center Pearl Harbor, HI
8. Naval Hospital Portsmouth, VA
9. Naval Hospital San Diego, CA
10. Naval Regional Finance Center Great Lakes, IL
11. Regional Accounting and Disbursing Center Jacksonville, FL
12. Fleet Accounting and Disbursing Center Norfolk, VA
13. Fleet Accounting and Disbursing Center San Diego, CA
14. Naval Reserve Financial Information Processing Center, LA
15. Naval Construction Battalion Center Port Hueneme, CA
16. Naval Construction Battalion Center Gulfport, MS

In accordance with Fink and Kosecoff (Fink and Kosecoff 1985, 52), a formal letter accompanied each set of questionnaires, explaining the scope and purpose of the survey and providing instructions for administering the questionnaire. (A sample cover letter is enclosed at Appendix A.) Each command was sent three questionnaires. To assure that questionnaire results provided varied perspectives on learning objective requirements, each command and was asked to

have the questionnaires completed by a junior 525-series accounting technician, an accounting technician supervisor, and the Accounting Officer or Comptroller. A stamped, return addressed envelope was provided to each command for mailing the completed questionnaires.

B. Survey Results.

Of the 210 surveys sent out to 70 commands, 110 were returned completed, indicating a response rate of 52%. Of the 110 returned questionnaires, forty-four were completed by junior accounting technicians, 39 by accounting technician supervisors, and 27 by comptrollers or accounting officers. The three major sections of the questionnaire (Personal Background Data, Learning Objectives, and Additional Comments) are summarized below. (Percentages may add up to more than 100% due to rounding error.)

1. Personal Background Data.

a. Job Title and Grade.

<u>Job Title</u>	<u>Grade</u>	<u>#</u>	<u>/</u>	<u>%</u>
Accounting Technicians	GS-4	4	/	4%
	GS-5	14	/	13%
	GS-6	17	/	15%
	GS-7	7	/	6%
	GS-8	1	/	1%
	Undetermined	1	/	1%

Supervisors	GS-7	5 / 5%
	GS-8	9 / 8%
	GS-9	11 / 10%
	GS-10	2 / 2%
	GS-11	3 / 3%
	GS-12	3 / 3%
	GS-13	1 / 1%
	Undetermined	5 / 5%
Comptroller/Accounting Officer	GS-9	1 / 1%
	GS-11	2 / 2%
	GS-12	6 / 5%
	GS-13	1 / 1%
	GM-13	6 / 5%
	GM-14	4 / 4%
	GM-15	1 / 1%
	O-3	2 / 2%
	O-5	1 / 1%
	Undetermined	3 / 3%

b. Type of Activity.

<u>Type of Activity</u>	<u># / %</u>
RMS activity/Comptroller Department	55 / 50%
FIPC/AAA	14 / 13%
Major/Sub Claimant	13 / 13%
Navy Stock Fund activity	0 / 0%
Navy Supply activity	2 / 3%
NIF activity	17 / 15%
Other (please specify)	0 / 0%
Undetermined	9 / 7%

c. Experience in Navy Accounting.

<u>Job Title</u>	<u>Number of years</u>	<u># / %</u>
Accounting Technician	Less than 1 year	3 / 3%
	1 - 3 years	13 / 12%
	3 - 5 years	8 / 7%
	Over 5 years	20 / 18%
Supervisor	Less than 1 year	0 / 0%
	1 - 3 years	0 / 0%
	3 - 5 years	3 / 3%
	Over 5 years	36 / 33%

Acctg Officer/	Less than 1 year	0 /	0%
Comptroller	1 - 3 years	0 /	0%
	3 - 5 years	1 /	1%
	Over 5 years	25 /	23%
	Not answered	1 /	1%

d. Educational Background.

<u>Education Level</u>	<u>Accounting Techs</u>	<u>Super- visors</u>	<u>AO/ Comptr</u>
Some high school	0%	0%	0%
High school Diploma	23%	15%	4%
Some college courses	45%	44%	26%
Two-year college degree	27%	23%	15%
Four-year college degree	5%	8%	26%
Graduate courses or above	0%	8%	30%

e. Accounting Education.

Respondents were asked whether their formal education included any courses in accounting. The results are presented below.

<u>Job Title</u>	<u>Yes</u>	<u>No</u>	<u>No Answer</u>
Accounting Technician	71%	20%	9%
Supervisors	82%	10%	8%
Accounting Officers/ Comptrollers	93%	7%	0%

f. Government Accounting Training.

Respondents were asked to indicate the type of government accounting training they had received in their first year as an accounting technician (if any). The responses received are presented below. Each response is immediately followed, in parentheses, by the number of times it was given. (Note section III.B.3.d on survey limitations

regarding the concern over the validity of some of the responses received.)

Accounting Technicians (5 responses)

Defense Small Purchase course (1)
Navy Financial Management and Accounting (1)
"A" School for Aviation Bookkeeping (1)
Introduction to Government Accounting (1)
Accounting for Non-accountants (1)

Supervisors (7 responses)

Budgeting and Accounting (2)
Utilities Management Report(2)
Accounting (1)
Government Accounting and Bookkeeping (1)
Navy Financial Management and Accounting (1)
Data Handling for Budget and Accounting Techs (1)
Federal Budget Process (1)
PPBS (1)
Preparing Defense Budgets (1)
Procurement Guidelines Training (1)
AS-S101 PCC short course (1)
Practice Problems in Government Accounting (1)
Budgeting with Microcomputers (1)
Budget Formulation (1)

Accounting Officer/Comptroller (5 responses)

Practical Comptroller Course (2)
Government Bookkeeping and Accounting (1)
Budget Justification (1)
Budget Formulation (1)
Budget Presentation (1)
Effective Naval Writing for Professionals (1)
Listening and Memory Development (1)
LOTUS 1-2-3 (1)
LAN Training (1)
ALS Training (1)
NAVCOMPT Intern (1)

g. Helpfulness of References.

Respondents were given four types of reference sources and were asked to rate how helpful these were to them in their first year as a Navy accounting technicians.

<u>Job Title</u>	<u>Very Helpful</u>	<u>Somewhat Helpful</u>	<u>Not Helpful</u>	<u>N/A</u>
Accounting Technicians				
Desk Guides	27%	18%	11%	25%
SOPs	7%	36%	11%	23%
Supervisors	70%	20%	0%	0%
Co-workers	64%	25%	2%	2%
On-site Trainer (Write-in response)	2%			
Supervisors				
Desk Guides	36%	28%	5%	23%
SOPs	36%	26%	5%	23%
Supervisors	69%	18%	8%	0%
Co-workers	74%	21%	0%	0%
Accounting Officer/ Comptroller				
Desk Guides	19%	22%	0%	30%
SOPs	19%	22%	0%	26%
Supervisors	37%	26%	4%	0%
Co-workers	52%	7%	7%	4%

h. Training/Reference Wishlist.

Respondents were asked to list the training or references that they would have liked to have had available to them during their first year as a Navy accounting technician. The responses submitted are listed below. Each response is immediately followed, in parentheses, by the number of times it was given.

Accounting Technicians

Navy Financial Management (3)
Government Bookkeeping and Accounting course (3)
Navy Accounting course (3)
Bookkeeping and Accounting course (2)
Basic Accounting course (2)
Cross training (2)
In-house correspondence courses (2)
LOTUS 1-2-3 (1)
Computer programs (1)
UADPS (1)
SFOEDL training (1)
NIF training (1)
Job Stress course (1)
Cost flow from Job Order inception to final costing/completion (1)

Supervisors

Navy/DoD courses on government accounting (12)
Practice Problems in Government Accounting (2)
NAVCOMPT Manuals (2)
Budget Execution (2)
CNET Accounting System Handbook (1)
CNATRA RMS Manual (1)
Flow of funds from requisition to 2199 (1)
Cost/General Ledger/Budget Fund Admin connection (1)
Navy Stock Fund Accounting (1)
Basic Government Bookkeeping (1)
NAVSUP-1 Manual (1)
How lines of accounting are created and what each element means (1)
Overview of what all accounting technicians and budget analysts in the office do (1)
Formalized classroom training (1)

Accounting Officers/Comptrollers

Navy Budgeting and Accounting course (3)
NAVCOMPT Manuals (2)
Familiarization with documents and accounting structures (1)
Government Accounting course (1)
NAVSO P3013 (1)
NAVSUP 485 (1)
How your duties are linked to rest of accounting system (1)
Structured in-house monthly classroom training (1)

2. Learning Objectives.

Respondents were asked to rate the importance of learning objectives, listed in the questionnaire, to the job performance of a first year Navy accounting technician. Additional space was provided for respondents to add any additional learning objectives that they felt should be included. A summary of the responses is provided below. It should be kept in mind that not all respondents answered all questions. The values listed are expressed as a percentage of the 110 survey responses received, and are arranged, within each category, in decreasing order of rated importance (as determined by number of "Must Know" ratings).

	<u>Must Know</u> (%)	<u>Nice to Know</u> (%)	<u>Not Needed</u> (%)
GENERAL ACCOUNTING CONCEPTS			
1. Be able to differentiate between commitments, obligations, and expenditures.	<u>94</u>	<u>5</u>	<u>1</u>
2. Differentiate between budget year, current year and prior year.	<u>86</u>	<u>12</u>	<u>2</u>
3. Understand the importance of reconciling financial records.	<u>85</u>	<u>15</u>	<u>0</u>
4. Be able to differentiate between an expense, an expenditure, and a disbursement.	<u>82</u>	<u>15</u>	<u>2</u>
5. Be able to validate and update official accounting reports.	<u>80</u>	<u>19</u>	<u>1</u>
6. Apply effective telephone techniques to establish/maintain customer relations.	<u>77</u>	<u>17</u>	<u>2</u>

	Must Know (%)	Nice to Know (%)	Not Needed (%)
7. Be familiar with the different obligation documents.	<u>76</u>	<u>19</u>	<u>5</u>
8. Differentiate between liquidated and unliquidated obligations.	<u>76</u>	<u>20</u>	<u>3</u>
9. Know the difference between a journal, ledger and voucher.	<u>65</u>	<u>32</u>	<u>3</u>
10. Differentiate between an undelivered order and outstanding obligation.	<u>64</u>	<u>25</u>	<u>7</u>
11. Be able to differentiate between the different types of funding (OM&N, Procurement, and Reimbursable).	<u>58</u>	<u>35</u>	<u>5</u>
12. Be able to reconcile FIPC/AAA records with comptroller department/cost center accounting records.	<u>57</u>	<u>32</u>	<u>10</u>
13. Be able to define gross adjusted obligations and undelivered order.	<u>57</u>	<u>32</u>	<u>9</u>
14. Be able to differentiate between a cost center and a fund administering activity.	<u>56</u>	<u>39</u>	<u>5</u>
15. Understand the significance of undistributed and unmatched disbursements/transfers with respect to the accuracy of accounting reports.	<u>56</u>	<u>42</u>	<u>8</u>
16. Understand the significance of large amounts of outstanding obligations or undelivered orders with respect to effective utilization of funds.	<u>55</u>	<u>34</u>	<u>6</u>
17. Understand how the journal, ledger and vouchers are used to maintain control and order in the system.	<u>55</u>	<u>43</u>	<u>1</u>
18. Be familiar with potential accounting transaction problem areas.	<u>55</u>	<u>45</u>	<u>0</u>
19. Be able to differentiate between allotment accounting, obligational accounting, accrual accounting, and cost accounting.	<u>52</u>	<u>40</u>	<u>8</u>

	Must Know (%)	Nice to Know (%)	Not Needed (%)
20. Be familiar with the Obligational Recording/Reconciliation Cycle.	<u>52</u>	<u>43</u>	<u>5</u>
21. Understand the difference between undistributed and unmatched disbursements/transfers.	<u>51</u>	<u>37</u>	<u>9</u>
22. Differentiate between funded and unfunded transactions.	<u>49</u>	<u>39</u>	<u>9</u>
23. Know the relationship of a budget to accounting.	<u>46</u>	<u>48</u>	<u>4</u>
24. Know what to look for when reviewing the Uniform General Ledger Accounts (GLAs).	<u>45</u>	<u>44</u>	<u>11</u>
25. Describe the function of a FIPC/AAA.	<u>40</u>	<u>52</u>	<u>8</u>
26. Be familiar with the overall structure of Navy General Ledger Accounting.	<u>39</u>	<u>55</u>	<u>5</u>
27. List the purposes for Navy accounting.	<u>36</u>	<u>55</u>	<u>3</u>
28. Be able to explain what IDA is.	<u>33</u>	<u>50</u>	<u>11</u>
29. Be able to list the main responsibilities of a cost center and a fund administering activity (FAA).	<u>26</u>	<u>59</u>	<u>15</u>
30. Identify the types of ledgers used at field activities.	<u>25</u>	<u>65</u>	<u>9</u>
31. Demonstrate computer proficiency in: Lotus 1-2-3	<u>24</u>	<u>50</u>	<u>21</u>
32. Be familiar with the concept of a revolving fund.	<u>20</u>	<u>71</u>	<u>9</u>
33. Demonstrate computer proficiency in: MS DOS	<u>18</u>	<u>52</u>	<u>27</u>
dBase	<u>15</u>	<u>51</u>	<u>25</u>
Word processing	<u>14</u>	<u>54</u>	<u>27</u>
34. (Write-in objective) Be familiar with the activities and functions that work with or around your process.	<u>1</u>	<u>0</u>	<u>1</u>

	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

35. (Write-in objective) Be familiar with supply system transactions and their effect on accounting.	<u>1</u>	<u>0</u>	<u>0</u>
36. (Write-in objective) Know the difference between stock and open purchase.	<u>1</u>	<u>0</u>	<u>0</u>
37. (Write-in objective) Know where documents originate and be able to follow their path through to completion.	<u>1</u>	<u>0</u>	<u>0</u>
38. (Write-in objective) Know how to follow up on old documents.	<u>1</u>	<u>0</u>	<u>0</u>
39. (Write-in objective) Know the difference between IDA and FMS.	<u>1</u>	<u>0</u>	<u>0</u>
40. (Write-in objective) Understand accounting elements.	<u>1</u>	<u>0</u>	<u>0</u>
41. (Write-in objective) Know the difference between appropriated and non-appropriated funds.	<u>0</u>	<u>1</u>	<u>0</u>
42. (Write-in objective) Know criteria for project order qualification.	<u>1</u>	<u>0</u>	<u>0</u>
43. (Write-in objective) Know contract types and their uses.	<u>1</u>	<u>0</u>	<u>0</u>

APPROPRIATIONS LAW

1. Know the time limits of obligational and expenditure availability periods.	<u>63</u>	<u>30</u>	<u>6</u>
2. Be able to differentiate between expired and lapsed appropriations.	<u>63</u>	<u>29</u>	<u>8</u>
3. Know the three limits on appropriations (ie. time/money/purpose).	<u>41</u>	<u>48</u>	<u>10</u>
4. Be familiar with the major causes of Title 31 (1517) violations.	<u>35</u>	<u>46</u>	<u>18</u>

	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

5. Know the scope of Title 31, US Code (Sec 1301 and 1517), and the penalties for violations.	<u>33</u>	<u>48</u>	<u>18</u>
6. Understand the visibility associated with Title 31 Violation Reports.	<u>29</u>	<u>49</u>	<u>20</u>
7. Understand the difference between fully and incrementally funded appropriations.	<u>23</u>	<u>55</u>	<u>19</u>
8. Know the difference between reprogramming and transferring, and be familiar with the restrictions of each.	<u>9</u>	<u>65</u>	<u>25</u>
9. (Write-in objective) Know the difference between an expense and an investment.	<u>1</u>	<u>0</u>	<u>0</u>
10. (Write-in objective) Know the funding criteria in NAVCOMPT Vol 7.	<u>1</u>	<u>0</u>	<u>0</u>

ACCOUNTING CLASSIFICATION SYSTEMS

1. Be familiar with standard document numbers.	<u>89</u>	<u>10</u>	<u>0</u>
2. Define a Job Order.	<u>83</u>	<u>16</u>	<u>1</u>
3. Understand the significance of a Unit Identification Code (UIC) with respect to Navy financial management.	<u>80</u>	<u>18</u>	<u>0</u>
4. Describe what job order numbers are, and what they are used for.	<u>74</u>	<u>22</u>	<u>1</u>
5. Be able to review, analyze and code incoming documents, authorizations, job orders, commitments, consignments, obligations, accounts payable, and NC621 Correction Notice adjustments.	<u>67</u>	<u>24</u>	<u>7</u>

	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

6. Be familiar with bookkeeping and accounting methods, forms and techniques for classifying and maintaining a variety of expenditure and collection accounts.	<u>65</u>	<u>35</u>	<u>0</u>
7. Be able to correctly load resource obligations.	<u>63</u>	<u>24</u>	<u>11</u>
8. Know how to correctly load job order numbers.	<u>51</u>	<u>31</u>	<u>8</u>
9. Be familiar with the Navy accounting classification system and its potential problems.	<u>42</u>	<u>51</u>	<u>5</u>
10. Be able to break down expenses into expense elements.	<u>42</u>	<u>40</u>	<u>16</u>
11. Be familiar with subsidiary ledgers and registers.	<u>39</u>	<u>54</u>	<u>5</u>
12. Describe what a control number is.	<u>34</u>	<u>55</u>	<u>9</u>
13. Know what Activity Group/Sub Activity Group codes are, and what they are used for.	<u>32</u>	<u>59</u>	<u>7</u>
14. Understand what the Uniform Chart of Expense Accounts is used for.	<u>19</u>	<u>37</u>	<u>12</u>
15. (Write-in objective) Know the importance of documentation for obligations.	<u>1</u>	<u>0</u>	<u>0</u>
16. (Write-in objective) Know the use/importance of each element of the line of accounting.	<u>1</u>	<u>0</u>	<u>0</u>
17. (Write-in objective) Know the purpose of a 621.	<u>1</u>	<u>0</u>	<u>0</u>
18. (Write-in objective) Understand the relationship between accounts and the general ledger (the impact of one execution code on many accounts).	<u>1</u>	<u>0</u>	<u>0</u>

	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

FLOW OF FUNDS

1. Understand and be able to record commitments, obligations, receipts and disbursements.	<u>83</u>	<u>14</u>	<u>2</u>
2. Be able to process expenditure and collection vouchers.	<u>60</u>	<u>33</u>	<u>5</u>
3. Understand the difference between an allotment, an operating budget, and an OPTAR.	<u>39</u>	<u>51</u>	<u>6</u>
4. Be familiar with the flow of financial information in the Navy accounting system.	<u>32</u>	<u>63</u>	<u>4</u>
5. Define total obligational authority (TOA).	<u>25</u>	<u>50</u>	<u>23</u>
6. Define budget fences (ie. ceilings and floors).	<u>10</u>	<u>57</u>	<u>32</u>
7. (Write-in objective) Be familiar with the flow of financial information.	<u>1</u>	<u>0</u>	<u>0</u>
8. (Write-in objective) Know the different types of direct/reimbursable funding documents and how to account for same.	<u>1</u>	<u>0</u>	<u>0</u>
9. (Write-in objective) Know the importance of leaving an audit trail.	<u>1</u>	<u>0</u>	<u>0</u>
10. (Write-in objective) Be able to conduct periodic obligation reviews for supply system/open purchase material requisitions, work requests, project orders and all types of contracts.	<u>1</u>	<u>0</u>	<u>0</u>
11. (Write-in objective) Be familiar with "administrative cancellation" rules associated with #19 above.	<u>1</u>	<u>0</u>	<u>0</u>

	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

ACCOUNTING REPORTS

1. Be familiar with factors that can affect accounting report accuracy.	<u>68</u>	<u>31</u>	<u>0</u>
2. Be familiar with DD Form 1155 for open purchase requests.	<u>57</u>	<u>29</u>	<u>13</u>
3. Be able to provide several methods to minimize accounting report errors.	<u>43</u>	<u>50</u>	<u>7</u>
4. Be familiar with the reconciliation report.	<u>43</u>	<u>45</u>	<u>10</u>
5. Be familiar with and be able to balance the General Ledger.	<u>43</u>	<u>44</u>	<u>14</u>
6. Be able to prepare and balance daily expenditure reports (Trial Balance Report 2199).	<u>38</u>	<u>45</u>	<u>16</u>
7. Be able to input expense element data into NAVCOMPT Form 2171.	<u>26</u>	<u>48</u>	<u>23</u>
8. (Write-in objective) Be familiar with NAVCOMPT 2275/2276/MIPRs, and how to account for same.	<u>1</u>	<u>0</u>	<u>0</u>

PROMPT PAY

1. Understand the discount policy and the importance of avoiding interest payment.	<u>55</u>	<u>38</u>	<u>7</u>
2. Be familiar with prompt payment procedures.	<u>55</u>	<u>37</u>	<u>7</u>
3. Be familiar with the invoice certification process.	<u>40</u>	<u>51</u>	<u>8</u>
4. Know invoice certification time limits.	<u>38</u>	<u>54</u>	<u>7</u>
5. Know how to perform voucher examinations.	<u>38</u>	<u>45</u>	<u>17</u>
6. Understand what Fast Pay is.	<u>35</u>	<u>55</u>	<u>9</u>

	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

7. Be able to process payment vouchers and enter into Uniformed Accounting Data Processing System (UADPS).	<u>35</u>	<u>48</u>	<u>15</u>
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8. Know what presumptive acceptance is.	<u>22</u>	<u>58</u>	<u>18</u>
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REIMBURSABLES

1. Be familiar with NAVCOMPT Form 2277.	<u>70</u>	<u>26</u>	<u>3</u>
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2. Be able to describe what reimbursable accounting is and how it works.	<u>62</u>	<u>35</u>	<u>4</u>
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3. Understand the accounting problems associated with reimbursables.	<u>55</u>	<u>41</u>	<u>5</u>
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4. Know the difference between a host, supporting and tenant activity.	<u>42</u>	<u>51</u>	<u>7</u>
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5. (Write-in objective) Be familiar with NAVCOMPT 2275.	<u>2</u>	<u>0</u>	<u>0</u>
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6. (Write-in objective) Know the difference between a WR# and a PO order 2275.	<u>1</u>	<u>0</u>	<u>0</u>
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7. (Write-in objective) Understand the importance of accuracy in NAVCOMPT 2193.	<u>1</u>	<u>0</u>	<u>0</u>
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8. (Write-in objective) Know the General Ledger accounts affected by reimbursable transactions.	<u>1</u>	<u>0</u>	<u>0</u>
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9. (Write-in objective) Be familiar with all types of reimbursable funding documents	<u>1</u>	<u>0</u>	<u>0</u>
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10. (Write-in objective) Have a basic understanding of restrictions and limits associated with funding documents.	<u>1</u>	<u>0</u>	<u>0</u>
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	Nice		
Must	to	Not	
Know	Know	Needed	
(%)	(%)	(%)	

11. (Write-in objective) Be knowledgeable in methods to track obligations/expenses and means to get them.	<u>1</u>	<u>0</u>	<u>0</u>
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12. (Write-in objective) Know the difference between incoming and outgoing.	<u>1</u>	<u>0</u>	<u>0</u>
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TRAVEL

1. Be familiar with travel order documentation.	<u>62</u>	<u>35</u>	<u>3</u>
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2. Be familiar with the methods and techniques for verifying, obligating and reconciling travel accounting transactions.	<u>62</u>	<u>34</u>	<u>4</u>
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3. Know your activity's travel accounting structure and be familiar with the necessary ledgers and reports.	<u>60</u>	<u>35</u>	<u>5</u>
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4. Be able to track delinquent advances.	<u>51</u>	<u>33</u>	<u>7</u>
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5. (Write-in objective) Understand the basics of travel advances.	<u>3</u>	<u>0</u>	<u>0</u>
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6. (Write-in objective) Be familiar with TAD/Travel positions.	<u>1</u>	<u>0</u>	<u>0</u>
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7. (Write-in objective) Be familiar with TAD TAR/TFUR Log System 2.0.	<u>1</u>	<u>0</u>	<u>0</u>
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8. (Write-in objective) Be familiar with travel entitlements, liquidation process and associated time constraints for followup actions and required NAVCOMPT logs.	<u>1</u>	<u>0</u>	<u>0</u>
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3. Additional Comments and Suggestions.

In addition to the tallied survey results presented above, a number of comments and suggestions were received with regard to training for accounting technicians. These are summarized below. The general and specific course recommendations are listed as they were provided by the respondents, therefore no more specific information regarding these recommendations is available.

a. Comments From Accounting Technicians.

The 44 junior accounting technicians responding to the survey questionnaire provided 26 comments in the "Additional Comments" section. Of these, one of the most frequently cited suggestions was the need for cross training and showing how one person's job relates to others and the "big picture". Seven of the 26 comments received (27%) referenced this need, and another comment related indirectly to the cross training suggestion in that it recognized that "depending on your specific job, all (of the learning objectives) are 'Must Know'." Other comments centered on specific types of courses felt to be beneficial to the first year accounting technician, as well as more general views on the types of training that should be made available. Comments listed are followed by the number of respondents in this group making the specific recommendation or comment.

General Recommendations

1. Make correspondence courses available at the employees expense or at shared expense with the employer, and encourage employee participation. (1)
2. Offer uniform training for all 525 series accounting technicians. (1)
3. Continued training should be offered even after the employee learns the job. (1)
4. Formal school training should be offered like the military. (1)
5. Classes should be combined with on-the-job training. (1)
6. SOPs and Desk Instructions should be provided as reference and back-up material. (2)

Specific Course Recommendations

1. Basic Navy Accounting Course. (2)
2. Financial Management and Accounting Course. (2)
3. Budget Course. (1)
4. Flow of information through the Navy financial system. (1)
5. Forms exposure. (1)
6. Brief orientation of what the employee's specific Navy activity is about (e.g. what it is, who its customers are, what services are offered, and how the different work centers all work together). (1)
7. Course similar to IDAFMS training course offered by RAADC-JAX, but geared to the entry-level. (1)
8. Early basic instruction in the more popular software packages (i.e. Lotus 1-2-3, Word Perfect). (1)
9. TAD TAR course, reviewing COMNAVSURFPACINST 1320.1D and TAD/TFUR log system 2.0 combined. (1)

b. Comments from Supervisors.

Thirteen comments were provided in the "Additional Comments" section of the questionnaire by the 39 supervisor respondents. The theme of these suggestions follow closely those of the accounting technicians. In this group too, frequent suggestions included the need for accounting technicians to see how what they do affects other aspects of the process (three respondents commented to this end). Other repeated comments include the need for more formal classroom training (two comments), the need for hands on experience and exposure to all phases of the process (e.g. cross training) (two comments), and the need for employees to know about what their organization does and how they fit into the big picture (one comment). One respondent also commented that accounting technicians should know how to use and where to find the various manuals and learning tools available. The more specific training recommendations provided follow.

Specific Course Recommendations.

1. Training should include an overview of the budget process, not only accounting practices.
2. Each Command should be urged to purchase a simplified Navy Accounting Correspondence course, if there is such a thing.
3. Provide detailed Supply System training.
4. Provide training that familiarizes accounting technicians with COGs, DGAs, Wash-throughs, NC2035s, Milstip/Milstrap, Desk Guide, Routing Identifier, Status Listings, Requisition, Fund Codes, Signal Codes, Purchase Orders, BPAs, Aviation Depot Level

Repairables and how the system works, the difference between Standard Price and Net Price, Carcase Listings, Replenishment Numbers, and Stock Replenishment.

c. Comments from Comptrollers/Accounting Officers.

Five comments were provided in the "Additional Comments" section of the survey questionnaire by the 27 Comptrollers and Accounting Officers responding. Their comments are listed below.

General Recommendations

1. Entry-level technicians should have on-the-job training for the first 4-6 months, followed by formal training in accounting and budgeting.
2. Supervisors should be provided with a formatted training syllabus, tailored to the specific type of activity, to use in training subordinates.

Specific Course Recommendations

1. Every technician should be trained in supply, disbursing and authorized accounting activity systems regarding procurement/payment documents.
2. To be truly effective, familiarization is highly desirable with all financial components (i.e. budgeting, stock fund, RMS direct/reimbursable accounting).
3. Accounting technicians should attend formal accounting systems training.

d. Survey Limitations.

In interpreting the survey questionnaire responses, limitations, some inherent to questionnaire-type surveys, must be taken into consideration. Limitations of surveys in general include the openness of questions to mis-

interpretation, the lack of control over assuring that the intended person completes the questionnaire, the lack of immediate feedback from the respondent, and the inability to control the environment in which the respondent completes the questionnaire.

Specific limitations particular to this thesis survey questionnaire include primarily misinterpretation or misreading of the questions and instructions, and a formatting error that caused numerous respondents to skip over one of the learning objectives.

With regard to misinterpretation and misreading of the questions and instructions, it is possible that accounting technicians other than those in the 525-series were asked to complete the questionnaire. Also, although survey questions attempted to emphasize the words "entry-level" and "first year", it was evident from some of the responses received that not everyone answered all questions keeping these words in mind. This is particularly evident in the responses to survey question #7 in the Background Data section, asking respondents to list the government accounting training they received during their first year as an accounting technician. (See Section III.B.1.f above.)

Additionally, the formatting error mentioned occurred in the Accounting Classification section of the questionnaire (Appendix A) on learning objective #13. The underlining in the answer block area was left out.

Consequently, the question was answered by only 75 out of 110 respondents (68%), perhaps causing that question's relative ranking to be somewhat lower than it would otherwise have been.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. The Importance of Training.

As the work force decreases in numbers, as the Department of Defense cuts back and is forced to do more with less, and as the educational preparedness of the work force decreases, training will assume ever greater importance to the readiness of the Defense work force. This situation is exacerbated by the fact that the Department of Defense faces increased competition with the private sector for entry-level accountants, while its financial environment is becoming increasingly complex and fast-changing (Bowles 1991, 51-53).

The establishment of the Defense Finance and Accounting System (DFAS), and its corresponding mission to standardize and simplify finance and accounting across agency and service lines, is one example of the immense changes taking place. To its credit, DFAS recognizes the importance of training to accomplishing the monumental task it has before it.

It operates on the principle that a productive and successful working environment requires the continuous development of the knowledge and skills of all employees...The agency desires a financial management career program designed to provide an opportunity for employees to enhance knowledge and skills needed in their present and future (emphasis added) positions in Department of Defense. (Career Structures Work Group 1991, 91.)

Presently, however, the Career Structures Working Group, in their Executive Summary, concluded that the "status quo for the education and training of Financial/Resource Management personnel in the Department of Defense is unsatisfactory." Although Continuing Professional Education (CPE) is becoming vital to keep pace with the constant changes in federal financial management operations, CPE is currently not used extensively (Bowles 1991, 51). Given the decreasing educational preparedness of the work force and the rapid pace of technological development and change, Department of Defense employees will require not only training, but continuous retraining (i.e. Continuous Professional Education). Consequently, if it hopes to have an effective financial/resource management force, the Federal Government will need to make a substantial investment in keeping the current work force competent and knowledgeable throughout their careers (Bowles 1991, 53). Not only will employees need to possess functional knowledge in greater depth, but they will be required to cross-train in other specialties (Independent Study Working Group 1991, 18). This increased importance of training is not, however, unique to the Department of Defense. The American Society for Training and Development predicts that by the year 2000, 75% of all workers currently employed will need retraining (Independent Study Working Group 1991, 16).

B. Learning Objectives Recommended.

An evaluation of the responses provided to survey-listed GS-525 series learning objectives, suggests that all of the objectives should be considered for incorporation into any GS-525 series training program developed. It should be kept in mind that responses were received from GS-525 series accounting technicians, and their supervisors, performing a variety of jobs in a wide range of Navy activities. As such, the responses show remarkable agreement.

Following is a summary of combined "must know"/"nice to know" rankings, in descending order.

<u>Number of Learning Objectives</u>	<u>Combined Ranking</u>
24 (28%)	over 95%
36 (42%)	90% - 95%
9 (10%)	85% - 90%
9 (10%)	80% - 85%
4 (5%)	75% - 80%
4 (5%)	70% - 75%
1 (1%)	65% - 70%

From this summary table it is evident that 90% of the learning objectives were ranked "nice to know" or higher by at least 80% of the respondents. In fact, of the eighty-six learning objectives listed, only one objective received a combined "must know"/"nice to know" ranking of less than 70%.

Taking a closer look at the "must know" category, 44 of the objectives (51%) were agreed to be in this category by over 50% of the respondents. Twelve objectives (14%) were

even agreed to be in this category by over 75% of the respondents. These 12 learning objectives are provided below.

- Be able to differentiate between commitments, obligations, and expenditures.
- Differentiate between budget year, current year and prior year.
- Understand the importance of reconciling financial records.
- Be able to differentiate between an expense, and expenditure, and a disbursement.
- Be able to validate and update official accounting reports.
- Apply effective telephone techniques to establish/maintain customer relations.
- Be familiar with the different obligation documents.
- Differentiate between liquidated and unliquidated obligations.
- Be familiar with standard document numbers.
- Define a Job Order.
- Understand the significance of a Unit Identification Code (UIC) with respect to Navy financial management.
- Understand and be able to record commitments, obligations, receipts and disbursements.

Given the high degree of consensus on the importance of the learning objectives surveyed in this thesis, it should be concluded that they are all relevant to the job taskings of GS-525 series accounting technicians, and should be covered in training.

C. Specific Recommendations for Incorporating Learning Objectives.

The present system of financial/resource management training is almost completely decentralized. The Executive Summary of the Symposium on Financial Management Education and Training recognizes, however, the need to move toward a more streamlined system with greater centralization (Executive Summary 1991, 5). One of the working group recommendations listed on page 29 (section II.E.3), in fact, includes developing a program that is based on core programs that cut across service/agency lines but have service/agency unique features. As such, the learning objectives offered by this thesis provide an important first step in the gradual move toward a single DoD-wide civilian career management program for GS-525 series accounting technicians.

Survey consensus on learning objectives and the repeated recommendation for cross training (from both survey respondents and cited expert sources), indicates that there is indeed enough common ground to set basic learning objectives for entry-level GS-525 series accounting technicians. In fact, of the 70 additional comments received on the survey questionnaire, 21% recommended some form of cross-training and the need for accounting technicians to see how they fit into the "big picture". Although in general consensus on the applicability of the learning objectives to GS-525 series careers is high, the survey shows greater agreement on the

"must know" value of objectives in the subject area of General Accounting Concepts and Accounting Classification Systems. This is to be expected, however, since there is the broadest overlap among the various GS-525 series positions in these subject areas. Keeping in mind, however, the growing need for cross-training, the other areas should not be excluded from GS-525 series entry-level training.

1. Review Existing Courseware.

The learning objectives compiled in this thesis could be used to evaluate existing training offerings to identify gaps and redundancies. To this end, they would help answer the following questions:

- Do existing courses address the proper mix of tasks performed by the GS-525 series accounting technician, and do they address the knowledge gaps of the population?
- Is there duplication of effort in current training material?

Once gaps and redundancies are identified, duplicated course material can be consolidated and gaps supplemented, with an eye towards standardization of procedures wherever feasible.

2. Personnel Qualification Standards Program.

The learning objectives provided could be used as the foundation of a Personnel Qualification Standards program, not unlike the one supported by the Department of the Navy for its military employees. It would ensure that accounting technicians are performing tasks that they are adequately qualified for. Such a program could be administered at the

individual activity level, and would include standardized training manuals and qualification sheets.

a. Training Manuals.

The training manuals in support of a Personnel Qualification Standard program should provide accounting technicians with a basic understanding of the subject area (Navy Practical Comptrollership Course Text 1991, K-44). The learning objectives would be incorporated into the training manuals to ensure that accounting technicians receive a basic understanding in the specific skills they will actually need in the performance of their jobs. In other words, it ensures that the training manuals address skills applicable to the end user, as recommended by the Career Structures Work Group Report. Care should be taken to ensure that the training manuals are well organized, that the material is covered at the appropriate level of comprehension and sophistication (Career Structures Work Group 1991, B-11). Additionally, manuals will need to be revised annually to ensure they are kept current with the latest developments in Defense finance and accounting. The basic knowledge acquired through these training manuals, if properly compiled and administered, would allow accounting technicians to more easily understand the rationale for standard operating procedures, and thereby increase the likelihood of compliance with procedures (Navy Practical Comptrollership Course Text 1991, K-44).

b. Demonstrated Competencies.

The learning objectives could be used to compile a competency qualification sheet that would serve as a "check-off" list for entry-level GS-525 series accounting technicians. Personnel would have to demonstrate competency of specific learning objectives, and have them signed off by a supervisor, before being allowed to perform unsupervised tasks involving those competencies. Although such a qualification sheet would be standardized for the entire GS-525 series accounting technician community, individual activities could be allowed some latitude in deciding the qualifications pertinent to the jobs performed at the activity in question. The qualification sheet would have to be revised at least annually to ensure that it is kept current with the latest developments in the finance and accounting community.

c. Recertification.

Given the complex and dynamic nature of the federal financial environment, retraining (or requalification) is a necessity. The accounting technicians' work environment and corresponding skill requirements are subject to change from influences ranging from the massive consolidation efforts planned for Department of Defense finance and accounting, to technological development and Congressional legislation. Training in such an active environment cannot be a one-time

effort, and accounting technicians will need to keep abreast of the changes through periodic recertification.

3. Guidance Manuals.

The learning objectives could be used to compile guidance manuals such as Standard Operating Procedures (SOP's), Desk Guides and Instructions. As evidenced by the responses to the survey questionnaire, SOP's and Desk Guides, when available, were found to be helpful by 45% and 43% of the respondents respectively. SOP's were found to be "very helpful" by 27%, "somewhat helpful" by 18%, "not helpful" by 11%, and "not available" by 25% of the respondents. Similar results were found for Desk Guides. These were ranked "very helpful" by 7%, "somewhat helpful" by 36%, "not helpful" by 11%, and "not available" by 23% of respondents.

Standard Operating Procedures (and Desk Guides) provide procedural guidance unique to an activity. They should be clear, concise, and comprehensive, and should explain difficult concepts on a level that can be understood by someone with no knowledge of the system. They should provide indexed information for quick reference, and allow for easy updating by placing material subject to change in removable appendices. Additionally, to ensure maximum compliance with procedures, SOP's/Desk Guides should include reasons for reconciling and maintaining accurate financial records, as well as provide instructions (and plenty of

examples) for completing specific procedures. (Navy Practical Comptrollership Course Text 1991, K-44-45). The usefulness of these references depends on how well they are tailored to the end user's needs, including the proper level of comprehension and sophistication (Career Structures Working Group 1991, B-11).

4. Standardized Training Programs.

The learning objectives could be used to establish standardized training programs for each specific type of activity. (Such a program was alluded to by one survey respondent who advocated a formatted (standardized) training syllabus for supervisors to administer to their subordinates.) Although centrally standardized, the program could be administration by local-area Comptroller/Accounting Offices. Such a program would facilitate the expansion of training attendance opportunities, as recommended by the Career Structures Work Group (Career Structures Work Group 1991, 185). It would bring appropriate training to the local area and obviate the need for cost-prohibitive travel and per diem.

Perhaps such a program could be implemented to incorporate the General Accounting Concepts and Accounting Classification Systems learning objectives as "basic training." This basic training could then be supplemented with "tracked" training, incorporating the learning objectives identified in the other areas.

5. Performance Reviews.

The learning objectives could be tailored to provide applicable and measurable objectives for incorporation into civilian performance standards. Supervisors less familiar with the job specific tasks of their subordinates would be provided with more in-depth knowledge of the skills required for successful job performance. This, in turn, would allow supervisors to evaluate employee performance objectively, and ensure that employees perceive the evaluation system as fair.

D. Need for Further Research.

In the course of conducting research in support of this thesis study, a number of areas warranting further research were discovered that are beyond the scope of this thesis. These areas are, however, vital to the success of a long-range education and training plan for GS-525 series accounting technicians, and are listed below.

- The types of training best suited to ensuring maximum training opportunities for GS-525 series accounting technicians need to be identified, developed and institutionalized.
- The effect of the continued evolvement of the Defense Finance and Accounting System and the Defense Business Operating Fund on the task analysis of GS-525 series accounting technicians, must be tracked to ensure that changes are incorporated into training standards.
- A means must be devised for increasing promotion opportunities for GS-525 series accounting technicians, to increase the numbers of women and minorities in the upper grade levels and to enhance morale and retention.

- A Career Management Program must be developed to include all financial/resource management personnel, including technicians and para professionals. Specifically, the needs of GS-525 series accounting technicians in such a program must be addressed.
- The feasibility of instituting mandatory training as part of a career program that includes GS-525 series accounting technicians must be researched.

E. Conclusion.

Continuing Professional Education (CPE) is currently not used extensively, but as the work force decreases, cross-training and more in-depth functional knowledge will be required of accounting technicians, and CPE will take on increasing importance (Independent Study Work Group 1991, 18). Despite the indisputable importance of training to the productivity of the organization, in times of budgetary trouble, training is traditionally one of the first casualties. Faced with a shrinking budget for the foreseeable future, the Department of Defense

...must be careful not to cut muscle as well as fat, as agencies seek budgetary lambs to slaughter. One of the first places we traditionally look for cost reductions is training budgets. But federal money spent on employee training and professional education are an investment in future productivity, not merely a current expenditure. (Bowles 1991, 54).

The Federal Government must make a long-term commitment to, and a farsighted investment in, professional education and training to remain competitive for talent and to keep its work force competent and knowledgeable (Bowles 1991, 53). A comprehensive and continuing professional education and

training program must be developed that includes GS-525 series accounting technicians. Incorporating the learning objectives provided by this thesis into such a program, as suggested previously in this chapter, would be a step toward ensuring the competence and skill of the Department of the Navy financial/resource management work force in the years ahead.

APPENDIX A

30 Aug 91

MEMORANDUM

From: Caroline M. Hillen, LT, USN, Naval Postgraduate School
To: Comptroller/Fiscal Officer

Subject: THESIS SURVEY QUESTIONNAIRES

Enclosures: (1) Three questionnaires: "Learning Objectives for
Navy Accounting Technicians (GS-525 series)"
(2) Return envelope

1. I am a student enrolled in the Financial Management Master's Degree program at the Naval Postgraduate School in Monterey, California. The enclosed questionnaire represents a vital part of the data collection phase of my thesis requirement. Your participation in ensuring the completion and return of the enclosed questionnaires is crucial to the success of my thesis study.

2. The Navy's financial community is likely to see turbulent times ahead. Decreased funding and cuts in personnel will greatly increase the importance of quality training. My thesis attempts to establish common learning objectives for entry-level GS-525 series accounting technicians. Once established, these objectives could be used to create a qualification program for government civilian employees similar to the Personnel Qualification Standards (PQS) applied to the Navy's military personnel.

3. To achieve the proper mix of perspectives from the questionnaire responses, would you please have the questionnaires (enclosure (1)) completed by the following personnel wherever possible:

- (a) junior accounting technician (with at least 1 year experience)
- (b) accounting technician supervisor
- (c) accounting officer or comptroller

4. Please return the completed questionnaires in the prestamped envelope provided, by 20 September 1991. Thank you in advance for taking the time to complete and return my questionnaires.

Caroline M. Hillen, LT, USN
Naval Postgraduate School
Code ASER
Monterey, CA 93943

QUESTIONNAIRE

Learning Objectives for Navy Accounting Technicians (GS-525 series)

Section I: Background Data

1. What is your job title and grade? _____
2. At what type of activity do you now work? (Please circle one)
 - a) RMS activity/Comptroller Department
 - b) FIPC/AAA
 - c) Major/Sub Claimant
 - d) Navy Stock Fund activity
 - e) Navy Supply activity
 - f) NIF activity
 - g) Other (please specify)_____
3. How long have you been working in Navy accounting? (Please circle one)
 - a) less than 1 year
 - b) 1 - 3 years
 - c) 3 - 5 years
 - d) over 5 years
4. What is your educational background? (Please circle one)
 - a) Some high school
 - b) High school diploma
 - c) Some college courses
 - d) Two-year college degree
 - e) Four-year college degree
 - f) Graduate courses or above
5. Was any of the above education in accounting? YES / NO
6. If you received any government accounting training during your first year as an accounting technician, was it (circle all that apply):
 - a) In-house
 - b) Correspondence courses
 - c) On-the-job training
 - d) Navy/DoD
 - e) Other _____
(please specify)
7. If you circled answer "d" in number 7, please list which training you received. _____

8. What training/references do you wish had been available to you during your first year as a Navy accounting technician? _____

9. How helpful to you were the following references in your first year as a Navy accounting technician?

	Very Helpful	Somewhat Helpful	Not Helpful	N/A
Desk guides	_____	_____	_____	_____
Standard Operating Procedure Manuals (SOPs)	_____	_____	_____	_____
Supervisors	_____	_____	_____	_____
Co-workers	_____	_____	_____	_____

Section II: Job-specific Data

Listed below are some learning objectives which may be important for entry-level accounting technicians to know in the first year of their employment. These objectives are purposely generic and not specific to any particular type of accounting technician job.

Keeping this in mind, how would you rate the importance of these learning objectives to the job performance of a first year Navy accounting technician? (The objectives listed are not all-inclusive; please feel free to add additional learning objectives in the space provided at the end of each section.)

Nice
Must to Not
Know Know Needed

GENERAL ACCOUNTING CONCEPTS

- | | | | |
|---|-------|-------|-------|
| 1. List 3 purposes for Navy accounting. | _____ | _____ | _____ |
| 2. Know the relationship of a budget to accounting. | _____ | _____ | _____ |
| 3. Be able to differentiate between commitments, obligations, and expenditures. | _____ | _____ | _____ |
| 4. Be able to differentiate between an expense, an expenditure, and a disbursement. | _____ | _____ | _____ |
| 5. Be able to differentiate between allotment accounting, obligational accounting, accrual accounting, and cost accounting. | _____ | _____ | _____ |
| 6. Know the difference between a journal, ledger and voucher. | _____ | _____ | _____ |

7. Understand how the journal, ledger and vouchers are used to maintain control and order in the system.

8. Identify the types of ledgers used at field activities.

9. Be familiar with the overall structure of Navy General Ledger Accounting.

10. Be familiar with potential accounting transaction problem areas.

11. Be able to differentiate between the different types of funding (OM&N, Procurement, and Reimbursable).

12. Differentiate between budget year, current year and prior year.

13. Be familiar with the concept of a revolving fund.

14. Be able to differentiate between a cost center and a fund administering activity.

15. Be able to list the main responsibilities of a cost center and a fund administering activity (FAA).

16. Describe the function of a FIPC/AAA.

17. Be able to reconcile FIPC/AAA records with comptroller department/cost center accounting records.

18. Understand the importance of reconciling financial records.

19. Be able to validate and update official accounting reports.

20. Know what to look for when reviewing the Uniform General Ledger Accounts (GLAs).

21. Be familiar with the Obligational Recording/ Reconciliation Cycle.

22. Be familiar with the different obligation documents.

23. Differentiate between funded and unfunded transactions.	_____	_____	_____
24. Differentiate between liquidated and unliquidated obligations.	_____	_____	_____
25. Be able to define gross adjusted obligations and undelivered order.	_____	_____	_____
26. Differentiate between an undelivered order and outstanding obligation.	_____	_____	_____
27. Understand the difference between undistributed and unmatched disbursements/transfers.	_____	_____	_____
28. Understand the significance of undistributed and unmatched disbursements/transfers with respect to the accuracy of accounting reports.	_____	_____	_____
29. Understand the significance of large amounts of outstanding obligations or undelivered orders with respect to effective utilization of funds.	_____	_____	_____
30. Be able to explain what IDA is.	_____	_____	_____
31. Demonstrate the ability to use IDA.	_____	_____	_____
32. Demonstrate computer proficiency in:			
MS DOS	_____	_____	_____
Lotus 1-2-3	_____	_____	_____
Word processing	_____	_____	_____
dBase	_____	_____	_____
33. Apply effective telephone techniques to establish/maintain customer relations.	_____	_____	_____
34. Your suggestions for additional general accounting concepts learning objectives:	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

APPROPRIATIONS LAW

1. Know the three limits on appropriations (ie. time/money/purpose).	_____	_____	_____
2. Understand the difference between fully and incrementally funded appropriations.	_____	_____	_____

3. Know the difference between reprogramming and transferring, and be familiar with the restrictions of each. _____
4. Know the time limits of obligational and expenditure availability periods. _____
5. Be able to differentiate between expired and lapsed appropriations. _____
6. Know the scope of Title 31, US Code (Sec 1301 and 1517), and the penalties for violations. _____
7. Be familiar with the major causes of Title 31 (1517) violations. _____
8. Understand the visibility associated with Title 31 Violation Reports. _____
9. Your suggestions for additional appropriations law learning objectives: _____

ACCOUNTING CLASSIFICATION SYSTEMS

1. Be familiar with the Navy accounting classification system and its potential problems. _____
2. Be familiar with bookkeeping and accounting methods, forms and techniques for classifying and maintaining a variety of expenditure and collection accounts. _____
3. Know what Activity Group/Sub Activity Group codes are, and what they are used for. _____
4. Describe what a control number is. _____
5. Understand the significance of a Unit Identification Code (UIC) with respect to Navy financial management. _____
6. Be familiar with standard document numbers. _____
7. Define a Job Order. _____
8. Describe what job order numbers are, and _____

what they are used for.

9. Know how to correctly load job order numbers.

10. Be able to review, analyze and code incoming documents, authorizations, job orders, commitments, consignments, obligations, accounts payable, and NC621 Correction Notice adjustments.

11. Be familiar with subsidiary ledgers and registers.

12. Be able to correctly load resource obligations.

13. Understand what the Uniform Chart of Expense Accounts is used for.

14. Be able to break down expenses into expense elements.

15. Your suggestions for additional accounting classifications systems learning objectives:

FLOW OF FUNDS

1. Be familiar with the flow of financial information in the Navy accounting system.

2. Be able to process expenditure and collection vouchers.

3. Understand the difference between an allotment, an operating budget, and an OPTAR.

4. Understand and be able to record commitments, obligations, receipts and disbursements.

5. Define budget fences (ie. ceilings and floors).

6. Define total obligational authority (TOA).

7. Your suggestions for additional flow of funds learning objectives:

ACCOUNTING REPORTS

1. Be familiar with factors that can affect accounting report accuracy. _____
2. Be able to prepare and balance daily expenditure reports (Trial Balance Report 2199). _____
3. Be able to provide several methods to minimize accounting report errors. _____
4. Be able to input expense element data into NAVCOMPT Form 2171. _____
5. Be familiar with and be able to balance the General Ledger. _____
6. Be familiar with the reconciliation report. _____
7. Be familiar with DD Form 1155 for open purchase requests. _____
8. Your suggestions for additional accounting reports learning objectives:

PROMPT PAY

1. Know how to perform voucher examinations. _____
2. Be able to process payment vouchers and enter into Uniformed Accounting Data Processing System (UADPS). _____
3. Be familiar with the invoice certification process. _____
4. Know what presumptive acceptance is. _____
5. Understand what Fast Pay is. _____
6. Know invoice certification time limits. _____
7. Understand the discount policy and the importance of avoiding interest payment. _____
8. Be familiar with prompt payment procedures. _____

9. Your suggestions for additional prompt pay learning objectives:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

REIMBURSABLES

1. Be able to describe what reimbursable accounting is and how it works.

_____	_____	_____
-------	-------	-------

2. Understand the accounting problems associated with reimbursables.

_____	_____	_____
-------	-------	-------

3. Know the difference between a host, supporting and tenant activity.

_____	_____	_____
-------	-------	-------

4. Be familiar with NAVCOMPT Form 2277.

_____	_____	_____
-------	-------	-------

5. Your suggestions for additional reimbursables learning objectives:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TRAVEL

1. Be familiar with travel order documentation.

_____	_____	_____
-------	-------	-------

2. Be able to track delinquent advances.

_____	_____	_____
-------	-------	-------

3. Know your activity's travel accounting structure and be familiar with the necessary ledgers and reports.

_____	_____	_____
-------	-------	-------

4. Be familiar with the methods and techniques for verifying, obligating and reconciling travel accounting transactions.

_____	_____	_____
-------	-------	-------

5. Your suggestions for additional travel learning objectives:

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Section III: Additional Comments

If you have any additional suggestions for improving entry-level Navy accounting technician training programs, please share your thoughts with me in the space provided below.

[illegible]

APPENDIX B

INTERVIEW REFERENCE LIST

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